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Tree Pest Leaflets
THE PALES WEEVIL

(*Hylobius pales* Herbst)

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Typical injury showing girdled stems.

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THE PALES WEEVIL

(*Hylobius pales* Herbst)

History and Distribution:—The pales weevil is present throughout the Eastern half of the United States and Southeastern Canada. In central New England it is considered a major forest pest. In 1914 this insect was found by Prof. E. E. Carter of the Harvard Forest School to be the cause for the almost universal failure of coniferous plantations on recently cut-over pine woodlots.

Host Trees:—The beetles feed on the bark of practically all of our native and planted conifers and some feeding has been found on hardwoods. White pine (*pinus strobus*) is by all means the favored host, with red pine (*Pinus resinosa*) at times being killed in large numbers.

Injury:—The beetles are attracted to areas by the odor from freshly cut pine stumps, slash, and lumber. Here they feed on the tender bark of coniferous seedlings which may be growing in close proximity to the attractant. Feeding is confined to the tender bark and buds. The bark is usually chewed off in irregular patches, and this injury commonly extends down below soil level to the roots. Trees up to five years of age are readily killed, those up to six feet injured, and smaller twigs on mature trees killed.

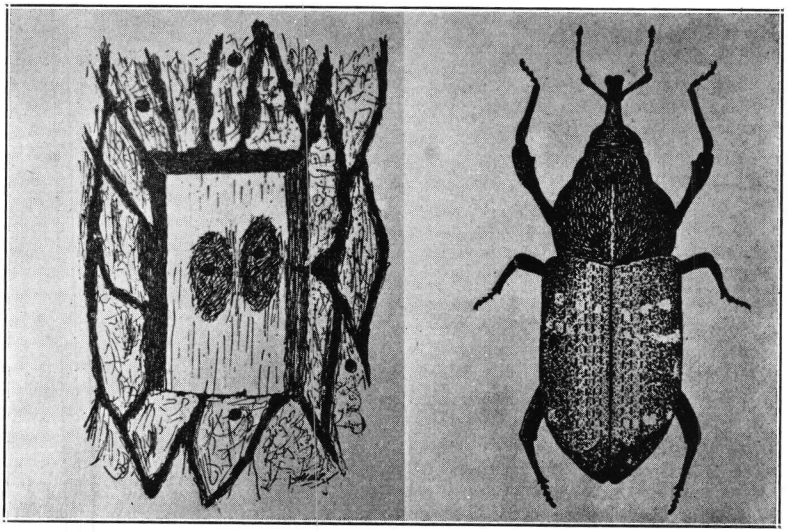
Description:—The adult is an oblong, robust, dark reddish brown to black snout beetle varying in length from one quarter to three eighths inch. Its stocky appearance and stout cylindrical beak are characteristics which make it easily identified when found in its natural habitat.

Life Cycle:—The adult beetles hibernate beneath stones or in the soil at the base of seedlings. They emerge during May and immediately start feeding. About the first of July eggs are laid singly in freshly cut pine logs or in the large roots of fresh cut pine stumps. The eggs hatch in about two weeks and the grubs feed during July and August beneath the bark. When full grown the grub forms an oval shallow cell in the sapwood arched over with a thick cover of chips which it has chewed off. The grub remains in this pupal cell about

two weeks, emerging in September as an adult beetle. It is at this time that the most severe damage to young trees is done. About the middle of October they go into hibernation. Feeding is done largely at night.

Migration:—The adults are strong flyers and indications are that they will travel several miles when attracted by fresh pine cuttings. The heaviest migration takes place in June.

Control on Cut-over Pine Lands:—No planting of conifers should be done until the third year after cutting on white, red, or pitch pine areas. Burning of slash over the stumps helps cut down the injury.



Left—Pupal cases beneath bark (Actual size)
Right—Adult greatly enlarged.

A very heavy stand of pine seedlings can often be obtained so that there will be enough live trees after pales weevil feeding to form the basis of a future stand. Such reproduction can be obtained by either cutting in a seed year or by a preliminary thinning to stimulate pine reproduction. It is wise to avoid contiguous large cuttings as they tend to build up heavy infestations.

Control on Open Land:—Pasture land bordering pine woods is often literally carpeted with natural pine seedlings destined to make

pure pine stands. Freshly cut pine logs or lumber should not be stacked in such areas. Over topping pasture pine should not be cut in such areas until young trees are above three feet in height. Logs should be sawed before beetles have a chance to mature in them.

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